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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/991,022 | 11/21/2001 | Anita Marten | 10537/181 | 2956 |

26646 7590 03/12/2003

KENYON & KENYON
ONE BROADWAY
NEW YORK, NY 10004

EXAMINER

MANLOVE, SHALIE A

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1755

DATE MAILED: 03/12/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/991,022

Applicant(s)

MARTEN, ANITA

Examiner

Shalie A. Manlove

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: In the specification, page 8, example 10 line 34 the formula "TiO" is questionable, should the formula be TiO_2 ?

Appropriate correction is required.

Information Disclosure Statement

2. DE 19748764 has been considered with respect to what is in the Specifications.

Claim Objections

3. Claim 2 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 2 discloses an organic coating comprising a pigmented coating and a priming coating, whereas claim 1 discloses the composition of a solids mixture comprising additive particles such as a carbide compound, and a transition element. The second claim is different from the first claim and thus, it fails to further limit.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 3 and 4 rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the

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claimed invention. The Specification teaches neither the claimed range of electrical conductivity nor how the solids mixture is configured to be applied to a substrate.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 3, 6 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. In claim 3, the phrase "the initial solids mixture is **configured** to be applied to a substrate" is vague and indefinite. The claim is not clear as to its meaning, and the specification does not teach how the mixture is configured, thus the claim cannot be examined.

9. The term "lower oxidation state" in claim 6 is a relative term, which renders the claim indefinite. The term "lower oxidation state" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Transition elements have numerous oxidation states, please be more specific.

10. Claim 6 is improperly dependent upon claim 5 because the lower oxidation states of Transition elements are insulators.

11. Claims 6 and 8 are indefinite because the claims are drawn to oxides, which are not conductive.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Newkirk et al (US 5,654,246).

Newkirk et al discloses fillers selected from SiC, BC₃, CeO₂, and ZrO₂, (col. 20, lines 28-col. 21 line 60).

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

14. Claims 1-5, and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Chang et al (US 6,420,293).

Chang et al discloses a ceramic matrix nanocomposite containing carbon nanotubes and a ceramic matrix. Nanotube particles are composed of C, BN₃, SiC, or MoO₃ (col. 3 lines 7-20) and the ceramic matrix comprises cerium oxide, yttrium oxide, magnesium oxide, alumina, titania, and zirconia (col. 4, lines 1-33).

15. Claims 1-4, 9-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Kawai et al (US 6,280,496).

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Kawai et al teaches aluminum-silicon carbide based composite material comprising aluminum metal and silicon carbide particles (col. 7, lines 12-23) for the purpose of enhancing metallic conductivity.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shalie A. Manlove whose telephone number is (703) 308-8275. The examiner can normally be reached on M-F 8:00- 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark L. Bell can be reached on (703) 308-3823. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Shalie A. Manlove
Examiner
Art Unit 1755

March 6, 2003



C. MELISSA KOSLOW
PRIMARY EXAMINER